

CLAIMS

Amend the claims as follows.

1-22. (Cancelled)

23. (Currently Amended) A system comprising:

a language analysis module configured to parse content of a query into elements and to associate one or more annotations with respective ones of at least some of the elements, a type of each of the annotations being either canonical or conceptual;

a rules engine coupled to the language analysis module to receive the elements and the annotations, the rules engine configured to perform a first comparison of a first condition of at least one rule ~~a rule~~ from a rules dictionary against the elements and the annotations, ~~and to selectively enable an action of the rule based upon a result of the comparison;~~ and

the rules engine configured to perform a second comparison of peripheral information distinct from the content of the query to a second different condition of at least one rule from the rules dictionary;

the rules engine configured to selectively enable an action based on a result of the first comparison and a result of the second comparison; and

a response generator coupled to the rules engine and configured to display information in response to the action;

wherein the action when enabled selects one of one or more information retrieval technologies to produce the information, and wherein the selected information retrieval technology is configured to search content storage via a semantic index to produce at least a portion of the information; ~~and~~

~~wherein the search of the content storage is subsequent to the comparison of the condition of the rule against the elements and the annotations.~~

24. (Previously Presented) The system of claim 23, further comprising matching ones of the elements against concepts stored in a multi-layered concept repository to produce the conceptual annotations.

25. (Previously Presented) The system of claim 23, wherein the action specifies one or more of the elements and the annotations as keys used to access the semantic index.

26. (Currently Amended) The system of claim 23, further comprising associating, via a regular expression language specifying the first condition of the corresponding rule, a plurality of the elements and the annotations with a concept in a multi-layered concept repository, wherein the action specifies the concept as a key used to access the semantic index.

27. (Currently Amended) The system of claim 26, wherein:
the rule is one of a plurality of rules, each of the rules of the rules dictionary has having at least one [[a]] respective condition and at least one [[a]] respective action;
the selected information retrieval technology is a first selected information retrieval technology, and the at least a portion of the produced information is an initial ~~a first~~ portion of the produced information; and
a second one of the actions when enabled selects a second distinct one of the information retrieval technologies, and the second selected information retrieval technology is configured to supply a managed answer as a subsequent ~~second~~ portion of the produced information.

28. (Currently Amended) The system of claim 27, wherein a third one of the actions when enabled provides a bias requirement, and wherein the response generator is configured to selectively display the produced information based on the bias requirement.

29. (Currently Amended) The system of claim 28, wherein the response generator is configured to display the initial ~~first~~ portion of the produced information in a first portion of a screen, and to display the subsequent ~~second~~ portion of the produced information in a second separate portion of the screen.

30. (Previously Presented) The system of claim 27, wherein the managed answer is specified via the one of the rules having the second action.

31. (Cancelled)

32. (Previously Presented) The system of claim 23, wherein the language analysis module is further configured to process the content storage to form the semantic index.

33. (Currently Amended) A method comprising:
searching, by a computer, content storage using a key to a semantic index;
prior to the searching of the content storage:
 ~~receiving a query;~~
 parsing content of a received ~~the~~ query into elements;
 associating one or more annotations with respective ones of at least some of the elements;
 comparing a respective first condition[[s]] of at least one rule ~~each of a plurality of rules~~ from a rules dictionary against the elements and the annotations;
 comparing a second condition of at least one rule from the rules dictionary against peripheral information distinct from the content of the query;
 selectively firing at least one ~~a respective~~ action of at least one of the rules from the rules dictionary ~~of each of the plurality of rules~~ based on ~~respective~~ results of the comparisons ~~comparison~~; and
 matching, by at least one of the rules, a plurality of the elements and the annotations to a concept representing an intent of the query content, wherein each of the plurality of the elements and the annotations corresponds to one or more words of the query content, and wherein the concept is used as the key to the semantic index used in the searching of the content storage;
in response to the selective firing ~~of at least one of the respective actions of at least one of the rules~~, operating one or more information retrieval technologies to produce respective information, wherein the one or more information retrieval technologies include the searching of the content storage; and
displaying the produced information.

34. (Previously Presented) The method of claim 33, wherein the matching is via a regular expression language.

35. (Currently Amended) The method of claim 34, wherein the matching determines if at least one of the plurality of the elements and the annotations shares a common ancestor in a multi-layered concept repository with a question example from the rules dictionary ~~of the at least one of the rules.~~

36. (Currently Amended) The method of claim 35, wherein the one of the information retrieval technologies is a first one of the information retrieval technologies, and wherein selectively firing at least one action comprises selectively firing a plurality of actions, the method further comprising:

in response to a first one of the firing actions, operating the first information retrieval technology;

in response to a second one of the firing actions, operating a second distinct one of the information retrieval technologies; and

providing, via the second one of the information retrieval technologies, a managed answer.

37. (Currently Amended) The method of claim 36, wherein the displaying of the produced information is selectively based on at least some of the firing actions.

38. (Currently Amended) The method of claim 37, ~~further comprising the providing of the managed answer by the at least some of the firing actions a bias requirement, and~~ wherein the displaying of the produced information is selectively based on a ~~the~~ bias requirement.

39. (Currently Amended) The method of claim 33, wherein the comparisons are ~~comparing~~ is via a regular expression language.

40. (Previously Presented) The method of claim 39, wherein the associating is, at least in part, via a multi-layered concept repository producing conceptual ones of the annotations.

41. (Currently Amended) The method of claim 40, wherein selectively firing at least one action comprises selectively firing a plurality of actions, and wherein at least one of the firing actions specifies one or more of the elements and the annotations as additional keys used for the searching of the content storage.

42. (Currently Amended) The method of claim 33, wherein selectively firing at least one action comprises selectively firing a plurality of actions, and the method further comprises
comprising:

determining a respective relevancy of each of ~~at least some of~~ the firing actions; and
selectively performing each of the ~~at least some of the~~ firing actions based upon the respective relevancy.

43. (Currently Amended) The method of claim 42, wherein the respective relevancy of a particular one of the firing actions is based on the ones of the elements and the annotations that contributed to the respective results of the comparisons ~~comparing that selectively fired the particular firing action.~~

44. (Currently Amended) An article of manufacture including a computer-readable medium having instructions stored thereon that, in response to execution by a computing device, cause the computing device to perform operations comprising:

~~A computer-readable medium comprising instructions that:~~
parsing content of ~~parse~~ a received query into elements;
associating ~~associate~~ one or more annotations with respective ones of at least some of the elements;

comparing a first condition ~~compare~~ respective conditions of at least one rule from a rules dictionary ~~each of a plurality of rules~~ against the elements and the annotations;

comparing a second condition of at least one rule from the rules dictionary against peripheral information distinct from the content of the query;

selectively firing at least one ~~fire a respective action of~~ at least one of the rules from the rules dictionary ~~of each of the plurality of rules~~ based on respective results of the comparisons ~~comparison;~~

in response to at least one of the firing actions, operating ~~operate~~ one or more information retrieval technologies to produce respective information;

matching ~~match~~, via at least one of the rules from the rules dictionary, a plurality of the elements and the annotations to a concept representing an intent of the query content, wherein each of the plurality of the elements and the annotations corresponds to one or more words of the query content;

searching ~~search~~ content storage using the concept as a key to a semantic index as a part of one of the information retrieval technologies; and

displaying ~~display~~ the information.

45. (Currently Amended) The article of manufacture ~~computer readable medium~~ of claim 44, wherein the matching utilizes ~~includes instructions that use~~ a regular expression language.

46. (Currently Amended) The article of manufacture ~~computer readable medium~~ of claim 45, wherein the operations further comprise determining ~~matching includes instructions that determine~~ if at least one of the plurality of the elements and the annotations shares a common ancestor in a multi-layered concept repository with a question example of the at least one of the rules.

47. (Currently Amended) The article of manufacture ~~computer readable medium~~ of claim 46, wherein the one of the information retrieval technologies is a first one of the information retrieval technologies, wherein selectively firing at least one action comprises selectively firing a plurality of actions, and the operations further comprise ~~further comprising instructions that:~~

in response to a first one of the firing actions, operating ~~operate~~ the first information retrieval technology;

in response to a second one of the firing actions, operating ~~operate~~ a second distinct one of the information retrieval technologies; and

providing ~~provide~~, via the second one of the information retrieval technologies ~~technology~~, a managed answer.

48. (Currently Amended) The article of manufacture ~~computer-readable medium~~ of claim 47, wherein the displaying of ~~the information~~ operates selectively based on at least some of the firing actions.

49. (Currently Amended) The article of manufacture ~~computer-readable medium~~ of claim 48, wherein the operations further comprise providing ~~further comprising instructions that provide~~, via the at least some of the firing actions, a bias requirement, and wherein the displaying of ~~the information~~ operates selectively based on the bias requirement.

50. (Currently Amended) The article of manufacture ~~computer-readable medium~~ of claim 44, wherein the comparison utilizes ~~includes instructions that use~~ a regular expression language.

51. (Currently Amended) The article of manufacture ~~computer-readable medium~~ of claim 50, wherein the associating utilizes ~~includes instructions that use~~ a multi-layered concept repository to produce conceptual ones of the annotations.

52. (Currently Amended) The article of manufacture ~~computer-readable medium~~ of claim 51, wherein at least one of the firing actions specifies one or more of the elements and the annotations as additional keys used for the searching of the content storage.

53. (Currently Amended) The article of manufacture ~~computer-readable medium~~ of claim 44, wherein the operations further comprise ~~further comprising instructions that:~~

determining ~~determine~~ a respective relevancy of each of at least some of the firing actions; and

selectively performing ~~perform~~ each of the at least some of the firing actions based upon the respective relevancy.

54. (Currently Amended) The article of manufacture ~~computer-readable medium~~ of claim 53, wherein the respective relevancy of a particular one of the firing actions is based on the

ones of the elements and the annotations that contributed to the respective results of the comparison that selectively fired the particular firing action.

55. (Currently Amended) The method of claim 33, further comprising:
prior to receiving the query, establishing the content storage during an indexing mode by importing structured content and/or unstructured content into the content storage;
using the action[[s]] selectively fired by the rules to define a search criteria including the concept; and
using the search criteria when searching the content storage as at least a part of the one or more information retrieval technologies.

56. (Currently Amended) The method of claim 33, wherein selectively firing at least one action comprises selectively firing a plurality of actions, the method further comprising:
specifying weightings via the actions selectively fired by the rules;
determining relevance to the query content of individual documents in the information according to the weightings; and
displaying the documents according to the relevance; ~~and~~
wherein the rules of the rules dictionary identify both the concept representing the intent of the query content to be addressed in the information and the weightings determining the relevance of the documents in the information.

57. (Previously Presented) The method of claim 33, wherein the one or more information retrieval technologies include one or more of keyword searching, document-level relevance-based searching, and ontology-based searching.

58. (New) The system of claim 23, wherein the peripheral information includes data from a particular user profile that is preset prior to generation of the query.

59. (New) The system of claim 58, wherein the user profile specifies prior queries submitted by a respective user of the particular user profile.

60. (New) The system of claim 23, wherein the peripheral information includes a time that the query was initiated.

61. (New) The system of claim 23, wherein the peripheral information includes session information or web page information.

62. (New) The system of claim 23, wherein the rules engine is configured to perform the second comparison prior to performing the first comparison.

63. (New) The system of claim 62, wherein the rules engine is configured to bypass the first comparison conditionally according to the result of the second comparison, and if the first comparison is bypassed, selectively enable the action based only on the result of the second comparison.